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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,619	09/15/2003	Hyun Jin Kim	0EKM-104792	9762

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EXAMINER

GORDON, RAEANN

ART UNIT PAPER NUMBER

3711

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SD

**Office Action Summary**

Application No.

10/662,619

Applicant(s)

KIM ET AL.

Examiner

Raeann Gorden

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 and 48-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41, 48, 49, 51-54 and 56-60 is/are rejected.
- 7) ☒ Claim(s) 50 and 55 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 51, 52, 56, 57, and 60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 51 and 56, the specification does not support "mixtures thereof" for the peroxides/crosslinkers. Claims 52 and 57, the specification does not support a combination of peroxides. Claim 60, no support for cyclohexylamine salt of 2-mercaptobenzothiazole.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22, 24-38, 40, 41, 48, 49, 51, 53, 54, 56, 58, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohama (2001/0031669). Regarding

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claims 1 and 41, Ohama discloses a golf ball core composition comprising 1,4-polybutadiene, peroxide (crosslinking agent), pentachlorothiophenol (peptizer) and 2-mercaptobenzothiazole (accelerator). Regarding claims 2-5, pentachlorothiophenol (peptizer) is present in the amount from 0.2 to 3.0 parts by weight. Regarding claims 6-9, 2-mercaptobenzothiazole (accelerator) is present in the amounts from 0.2 to 3.0 parts by weight. Regarding claims 10-12, peroxide (crosslinking agent) is present in the amount from 0.3 to 2 parts by weight. Regarding claim 13, the core composition is made from 1,4-polybutadiene. Regarding claims 14-17, the core composition includes filler such as zinc oxide and barium sulfate in the amounts from 5 to 30 parts by weight. Regarding claims 18 and 19, the core composition includes metal salts unsaturated carboxylic acid in the amount from 15 to 30 parts by weight. Regarding claim 20, the golf ball includes a core and cover, wherein the core is made from the composition (see above). Regarding claim 21, the core may include multiple layers, i.e. intermediate layer. Regarding claim 22, the state of the materials during manufacturing does not appear to affect the final product since the composition results a solid. Regarding claim 24, the golf ball includes a core, intermediate layer, and cover, wherein the core is made from the composition. Regarding claims 25-28, Ohama discloses a golf ball core composition comprising 1,4-polybutadiene, peroxide (crosslinking agent), pentachlorothiophenol (peptizer), and 2-mercaptobenzothiazole (accelerator). Peroxide (crosslinking agent) is present in the amount from 0.3 to 2 parts by weight. Zinc pentachlorothiophenol (peptizer) and 2-mercaptobenzothiazole (accelerator) are present in combination from 0.2 to 3.0 parts by weight. Regarding claim 29, the core

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composition is made from 1,4-polybutadiene. Regarding claims 30-33, the core composition includes filler such as zinc oxide and barium sulfate in the amounts from 5 to 30 parts by weight. Regarding claims 34 and 35, the core composition includes metal salts unsaturated carboxylic acid in the amount from 15 to 30 parts by weight.

Regarding claim 36, the golf ball includes a core and cover, wherein the core is made from the composition (see above). Regarding claim 37, the core may include multiple layers, i.e., intermediate layer. Regarding claim 38, the state of the materials during manufacturing does not appear to affect the final product since the composition results a solid. Regarding claim 40, the golf ball includes a core, intermediate layer, and cover, wherein the core is made from the composition. Regarding claims 48 and 53, the core composition includes metal salts unsaturated carboxylic acid. Regarding claims 49 and 54, the composition includes an organosulfur. Regarding claim 51 and 56, the composition includes dicumyl peroxide. Claims 58 and 59, Ohama discloses a golf ball comprising a composition including a polybutadiene, peroxide and 2-mercaptobenzothiazole. One of ordinary skill in the art would vary the quantities of the materials for the desired properties. Please note, Ohama clearly suggests the use of more than one organosulfur (refer to applicant's accelerator and peptizer).

Claims 23 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohama (2001/0031669) in view of Sullivan (2001/0000506). Ohama discloses the invention but does not disclose a wound layer. Sullivan teaches a golf ball comprising a solid or wound layer over the core. One of ordinary skill in the art would include wound layer for lower manufacturing costs.

***Allowable Subject Matter***

Claims 50 and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

The declaration filed under 37 CFR 1.131 has been entered and considered. The prior art cited in the previous office action has been removed. However, upon further consideration new grounds of rejection are set forth above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raeann Gorden whose telephone number is 571-272-4409. The examiner can normally be reached on Mon, Tues, Thurs, Fri 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rg  
August 22, 2005



**RAEANN GORDEN**  
**PRIMARY EXAMINER**